

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1-4 (canceled)

5. (Withdrawn) A method of manufacturing a fiber lens comprising the steps of:

stuffing a specific shaped frame opening top and bottom ends with one of individual optical fibers of a specific length and a fiber bundle bundling a plurality of the optical fibers around which a light-absorbing layer is formed, with a longitudinal direction of the optical fiber in the vertical direction and side by side in a diametrical direction of the optical fiber; and solidifying an adhesive filling gaps of the optical fibers.

6. (Withdrawn) A method of manufacturing a fiber lens comprising the steps of:

disposing close one of individual optical fibers of a specific length and a fiber bundle bundling a plurality of the optical fibers around which a light-absorbing layer is formed, side by side in a diametrical direction of the optical fiber; and

solidifying an adhesive filling gaps of the optical fibers by thermo-compression bonding with disposed optical fibers put between two basal plates in a specific shape.

7. (Withdrawn) A method of manufacturing a fiber lens according to claim 5 or 6, wherein the adhesive is used as the light-absorbing layer.

8. (Withdrawn) A method of manufacturing a fiber lens according to claim 5 or 6, wherein the adhesive is either one of glass or resin that have a low softening degree, and the softening degree is lower than that of the materials composing the fiber lens.

Claims 9-22 (canceled)

23. (New) An image reader comprising light source means for irradiating an original surface and light receiving means for receiving reflected light on the original, the light source means including:

a belt-like light source; and

a condensing lens attached to an irradiating surface of the light source, and the light source means forming trapezoid-shaped distribution of illuminance in a sub-scanning direction.

24. (New) An image reader according to claim 23, wherein a maximum value in the trapezoid-shaped distribution of illuminance is more than a maximum value in a distribution of illuminance in case of using only the belt-like light source, and an upper base of the trapezoid-shaped distribution of illuminance has a width determined according to an expectable shifting amount of the original.

25. (New) An image reader according to claim 23, wherein the condensing lens is in a shape of a series in the sub-scanning direction of a convex, one of a concave and a plane, and a convex.

26. (New) An image reader according to claim 23, wherein the condensing lens has a shape of a D-section cylinder of which one of a plane and a concave is placed on a position corresponding to a top of a curved surface.

27. (New) An image reader according to claim 23, wherein light sources are disposed symmetrically with respect to a reading position.

28. (New) An image processor comprising an image reader having light source means for irradiating an original surface and light receiving means for receiving reflected light on the original, the light source means including:

a belt-like light source; and

a condensing lens attached to an irradiating surface of the light source, and the light source means forming trapezoid-shaped distribution of illuminance in a sub-scanning direction.

29. (New) An image processor according to claim 28, wherein contact type image readers are provided on upper and lower sides of a transport path for the original.

30. (New) An image processor according to claim 28, wherein a maximum value in the trapezoid-shaped distribution of illuminance is more than a maximum value in a distribution of illuminance in case of using only the belt-like light source, and an upper base of the trapezoid-shaped distribution of illuminance has a width determined according to an expectable shifting amount of the original.

31. (New) An image processor according to claim 28, wherein the condensing lens is in a shape of a series in the sub-scanning direction of a convex, one of a concave and a plane, and a convex.

32. (New) An image processor according to claim 28, wherein the condensing lens has a shape of a D-section cylinder of which one of a plane and a concave is placed on a position corresponding to a top of a curved surface.

33. (New) An image processor according to claim 23, wherein light sources are disposed symmetrically with respect to a reading position.